

## 50 CFR Part 17

**Endangered and Threatened Wildlife and Plants; Proposed Endangered Status for *Buxus vahlii* (Vahl's Boxwood)**

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Proposed rule.

**SUMMARY:** The U.S. Fish and Wildlife Service proposes to determine a plant, *Buxus vahlii* (Vahl's boxwood), to be an endangered species under the authority of the Endangered Species Act as amended. *Buxus vahlii* is only found in the semievergreen seasonal forests that occur on limestone in north and northwestern Puerto Rico. Only about 40 individuals of the species are known to exist. Of the two locales that support populations of *Buxus vahlii*, one is on land owned by the Government of the Commonwealth of Puerto Rico, and the other is on privately owned land. The continued existence of this species is endangered by its very limited numbers, potential habitat modification or destruction due to limestone mining and

urbanization in the privately owned locale, and possible construction of a coal-fueled power plant on the government-owned land. This proposal, if made final, would implement the protection provided by the Endangered Species Act of 1973, as amended, for *Buxus vahlii*. The Service seeks data and comments on this proposal.

**DATES:** Comments from all interested parties must be received by September 11, 1984. Public hearing requests must be received by August 27, 1984.

**ADDRESSES:** Comments and materials concerning this proposal should be sent to the Ecological Services Field Supervisor, U.S. Fish and Wildlife Service, P.O. Box 3005-Marina Station, Mayagüez, Puerto Rico 00709-3005. Comments and materials received will be available for public inspection by appointment at this office during usual business hours, and at the Service's Regional Office, Richard B. Russell Federal Building, Room 1282, 75 Spring Street, SW., Atlanta, Georgia 30303.

**FOR FURTHER INFORMATION CONTACT:** Mr. Robert Pace at the Mayagüez address above (809/833-5760 or FTS 967-1221), or Mr. Richard P. Ingram the Atlanta Regional Office address above (404/221-3583 or FTS 242-3593).

**SUPPLEMENTARY INFORMATION:****Background**

When and where the first collections of *Buxus vahlii* were made is not known. It was first identified incorrectly as *Crantzia laevigata* (i.e., *Buxus laevigata*) by Vahl in 1791, and later correctly described as a new species by Baillon in 1859. Although originally thought to occur both in Puerto Rico and on St. Croix, U.S. Virgin Islands, this no longer appears to be correct. *Buxus vahlii* has not been collected on St. Croix by any botanist in recent times. Examination by Drs. José L. Vivaldi and Roy O. Woodbury, Puerto Rican botanists, of specimens of the genus *Buxus* collected on St. Croix (including the type of *Tricera laevigata* var. *sanctae-crucis*) indicated that none could be attributed to *Buxus vahlii*. An early report listing Jamaica as part of *Buxus vahlii*'s distribution has never been confirmed (Little *et al.*, 1974); *B. laevigata* does occur in Jamaica. Thus, *Buxus vahlii* is now considered to be endemic to Puerto Rico.

*Buxus vahlii* is an evergreen shrub or small tree up to 15 feet tall with stems 3 inches thick. The twigs have two characteristic grooves below each pair

of leaves. The entire plant is hairless. The more or less oblong leaves are simple, opposite, dark shiny green, up to 1.5 inches long and  $\frac{3}{4}$  inch wide. *Buxus vahlii* does not reproduce vegetatively; flowering is in December to early April. The flower cluster is small, about  $\frac{1}{4}$  inch long, with the solitary female flower at the tip and several male flowers borne just below it. The fruit is a horned capsule.

*Buxus vahlii* is found in semievergreen seasonal forests on limestone at elevations between 82 and 656 feet in Hato Tejas (Bayamón) and about 70 miles away in Punta Higüero (Rincón). The site at Rincón in northwestern Puerto Rico may have been known to Sinteris in 1886, while the other at Hato Tejas in north-central Puerto Rico was discovered in the 1950's by Roy O. Woodbury. A specimen collected by Heller in 1902 from "Limestone hills along the coast 3 miles west of Ponce" had been mislabeled. This area is occupied by dry woodlands very different from the semievergreen forests in which *Buxus vahlii* is found, and both Woodbury and Vivaldi have done field work in the area and agree that it is very unlikely that *Buxus vahlii* could occur there. Similar label errors have been found with another species collected by Heller.

*Buxus vahlii* was recommended for Federal listing by the Smithsonian Institution (Ayensu and DeFilipps, 1978). In August 1979, the Service contracted Dr. José L. Vivaldi, a resident botanist of Puerto Rico, to conduct a status survey of some plants thought to be candidates for listing as endangered or threatened in Puerto Rico and the Virgin Islands. Reports and documentation resulting from this survey recommended that *Buxus vahlii* be proposed for listing as an endangered species. On December 15, 1980, the Service published a notice in the **Federal Register** (45 FR 82479) listing those plant taxa being considered for listing as endangered or threatened species; *Buxus vahlii* was included.

In a notice published in the **Federal Register** on February 15, 1983 (48 FR 6752), the Service reported the earlier acceptance of the new taxa in the Smithsonian's 1978 book as under petition within the context of Section 4(B)(3)(A) of the Act, as amended in 1982. On October 13, 1983, the petition finding was made that listing *Buxus vahlii* was warranted but precluded by other pending listing actions, in accordance with Section 4(b)(3)(B)(iii) of the Act, notification of the finding was published in the January 20, 1984, **Federal Register** (49 FR 2485). Such a finding requires a recycling of the

petition, pursuant to Section 4(b)(3)(C)(i) of the Act. Therefore, a new finding must be made; we find that the petitioned action is warranted in accordance with Section 4(b)(3)(B)(ii) of the Act.

#### Summary of Factors Affecting the Species

Section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) and regulations promulgated to implement the listing provisions of the Act (codified at 50 CFR Part 424; under revision to accommodate 1982 Amendments—see proposed rule of August 8, 1983 (48 FR 36021)) set forth the procedures for adding species to the Federal lists. A species may be determined to be an endangered or a threatened species due to one or more of the five factors described in that section. These factors and their application to *Buxus vahlii* Baillon (Vahl's boxwood) are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* The Rincón site, which is owned by the Commonwealth of Puerto Rico, has been proposed as a possible locale (although now not the preferred locale) for the construction of a coal-fueled power plant to be constructed by the Puerto Rico Electrical Power Authority and the Federal Rural Electrification Administration. The power plant would require a large storage area for the coal and cinder. To make space, part of the property, perhaps including the ravine or its drainage area, might be converted. This could either destroy the 12–20 plants and their habitat, or modify the habitat by changing the drainage pattern in the ravine or by introducing pollutants leached from the coal or cinders. Air pollution from the power plant could also affect the species.

The Hato Tejas population of about 24 individuals is located in a haystack hill group that is surrounded by a large shopping center and several commercial and industrial lots. A possible place for expanded development would be the area now occupied by the hills, which could be razed and sold for limestone or fill material. These activities would result in the complete destruction of the habitat; however, there are no known plans for development at present. This *Buxus vahlii* population is located on the edge of an old limestone quarry. Past mining activities in the area resulted in the destruction of more than half of the boxwood population since the 1950's (Vivaldi and Woodbury, 1981). The quarry is not active at this time, but could become active if such activities again become profitable.

B. *Overutilization for commercial, recreational, scientific, or educational purposes.* Taking has not been a documented factor in the decline of this species, but could easily become so. Both populations are accessible by road and trail. Boxwoods are beautiful shrubs, and several species are grown in cultivation around the world. There is a society devoted to the genus. This species many have ornamental potential (Little *et al.*, 1974), and professional cultivation of the species is being attempted.

C. *Disease or predation.* Many houses are on private property on the eastern edge of the government property at the Rincón site, and only about 300 feet from the *Buxus vahlii* population. Some of the inhabitants have goats, which could affect the boxwood if they were allowed to roam free or escaped into the government-owned area.

D. *The inadequacy of existing regulatory mechanisms.* The Commonwealth of Puerto Rico does not have specific legislation or rules to protect endangered or threatened species of plants, although a list of vulnerable species exists. If mining activities become involved, the Department of Natural Resources presumably could prohibit such activities in order to save the species by making reference to Law 144, June 3, 1976, "Extracción de materiales de la corteza terrestre," which regulates sand extraction. However, whether or not this prohibition should be used to control taking of a federally listed endangered species would depend on Commonwealth courts' interpretation; there is no established precedent.

E. *Other natural or manmade factors affecting its continued existence.* *Buxus vahlii* is found in two small, compact, isolated populations separated by about 70 miles. It has a very narrow ecological niche and is restricted to ravines and ledges in semievergreen seasonal forests on limestone. Only about 40 individuals are known (about half in each population), a reduction from over 60 known individuals in the 1950's. A loss of genetic variation in the species is therefore probable. In addition, seedlings have not been observed. These factors increase the vulnerability of the species to the other threats described above.

The careful assessment of the best scientific information available, as well as the best assessment of the past, present, and future threats faced by this species, were considered in determining the preferred action of this rule. Based on this evaluation, the preferred action is to list *Buxus vahlii* as an endangered

species. With so few individuals known and the risk of damage to the plant and/or its habitat, endangered status seems an accurate assessment of the species' condition. It is not prudent to propose critical habitat because doing so would increase risk to the species, as detailed below.

#### Critical Habitat

Section 4(a)(3) of the Endangered Species Act, as amended, requires that to the maximum extent prudent and determinable, any habitat of the species that is thought to be critical habitat shall be designated at the time the species is listed as endangered or threatened. The Service has determined that designation of critical habitat is not prudent for *Buxus vahlii* at this time.

As discussed under threat factor B above, *Buxus vahlii* is potentially threatened by collecting, an activity regulated by the Endangered Species Act with respect to plants only on lands under Federal jurisdiction; such lands are not involved in this proposal. Publication of critical habitat localities near homes and urban areas would increase the risk of collecting or vandalism. The extreme vulnerability of *Buxus vahlii* to any collecting would make it quite detrimental to the survival of the species. Thus, determination of critical habitat for *Buxus vahlii* would not be prudent at this time.

#### Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Endangered Species Act include recognition, recovery actions, requirements for Federal protection and prohibitions against certain practices. Recognition through listing encourages and can result in conservation actions by other Federal, Commonwealth, and private agencies, groups, and individuals. The Endangered Species Act provides the possibility for land acquisition and cooperative efforts with the Commonwealth, and requires that recovery actions be carried out for all listed species. Such actions are initiated by the Service as appropriate following listing. The protection required by Federal agencies and other prohibitions are discussed in detail below.

Section 7(a) of the Act, as amended, requires all Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened. Regulations implementing this provision of the Act are codified at 50 CFR Part 402 and are now under revision (see proposed rule of June 29, 1983; 48 FR 29989). For a proposed species, agencies are required by

Section 7(a)(4) to informally confer with the Service on any action likely to jeopardize the continued existence of the species. After publication of a final rule, Section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of the species. If a Federal action is expected to affect the species, the Federal agency planning the action must enter into formal consultation with the Service.

The only Federal involvement foreseen is that of the Rural Electrification Administration, near Rincon. In the event that the Punta Higüero site (which is now not preferred) is chosen for the coal-fueled power plant sponsored by the Puerto Rico Electrical Power Authority and the Federal Rural Electrification Administration, a strong commitment would be needed to protect *Buxus vahlii*. If the site is chosen, the species could be affected in various ways, as discussed above. Without the protection provided by the Act, the species might not be sufficiently considered in planning the project and could be brought much closer to extinction.

The Act and implementing regulations published in the June 24, 1977, *Federal Register* (42 FR 32373-32381), set forth a series of general trade prohibitions and exceptions that apply to all endangered plant species. Regulations pertaining to endangered plants, found at 50 CFR 17.61 and 17.62, are summarized below.

With respect to *Buxus vahlii*, all trade prohibitions of Section 9(a)(2) of the Act, as implemented by 50 CFR 17.61, would apply. These prohibitions, in part, would make it illegal for any person subject to the jurisdiction of the United States to import or export, transport in interstate or foreign commerce in the course of a commercial activity, or sell or offer for sale this species in interstate or foreign commerce. Certain exceptions could apply to agents of the Service and Commonwealth conservation agencies. The Act and 50 CFR 17.62 also provide for the issuance of permits to carry out otherwise prohibited activities involving endangered species under certain circumstances. International trade and interstate commercial trade in *Buxus vahlii* are not known to exist, and the plant is very rare in experimental cultivation. It is anticipated that few permits involving plants of wild origin would ever be issued.

Section 9(a)(2)(B) of the Act, as amended in 1982, makes it unlawful to remove and reduce to possession endangered plant species from areas under Federal jurisdiction. The new prohibitions would apply to *Buxus*

*vahlii*. Permits for exceptions to this prohibition are available through Section 10(a) of the Act until revised regulations are promulgated to incorporate the 1982 Amendments. Proposed regulations implementing this new prohibitions were published on July 8, 1983 (48 FR 31417), and these will be made final following public comment. *Buxus vahlii* is not known to occur on any Federal lands at this time, so requests for taking permits are not anticipated. Requests for copies of the regulations on plants and inquiries regarding them may be addressed to the Federal Wildlife Permit Office, U.S. Fish and Wildlife Service, Washington, D.C. 20240 (703/235-1903).

If this species is listed under the Act, the Service will review its status to determine whether it should be placed on the Annex to the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere, which is implemented through Section 8A(e) of the Act, and whether it should be considered under other appropriate international agreements.

#### Public Comments Solicited

The Service intends that any rules finally adopted will be accurate and as effective as possible in the conservation of each endangered or threatened species. Therefore, any comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, private interest, or any other interested party concerning any aspect of these proposed rules are hereby solicited. Comments particularly are sought concerning:

- (1) Biological, commercial trade, or other relevant data concerning any threat (or lack thereof) to *Buxus vahlii*;
- (2) The location of any additional populations of *Buxus vahlii* and the reasons why any habitat of this species should or should not be designated as critical habitat as provided by Section 4 of the Act;
- (3) Additional information concerning the range and distribution of this species; and
- (4) Current or planned activities in the subject areas and their possible impacts on *Buxus vahlii*.

Final promulgation of regulations on *Buxus vahlii* will take into consideration the comments and any additional information received by the Service, and such communications may lead to a final regulation that differs from this proposal.

The Endangered Species Act provides for a public hearing on this proposal if requested. Requests must be filed within

45 days of the date of the proposal. Such requests should be made in writing and addressed to the Ecological Services Field Supervisor, U.S. Fish and Wildlife Service, P.O. Box 3005, Marina Station, Mayagüez, Puerto Rico 00709-3005 (809/833-5760).

#### National Environmental Policy Act

In accordance with a recommendation from the Council on Environmental Quality (CEQ), the Service has not prepared any NEPA documentation for this proposed rule. The recommendation from CEQ was based, in part, upon a decision in the Sixth Circuit Court of Appeals, which held that the preparation of NEPA documentation was not required as a matter of law for Section 4(a) actions under the Endangered Species Act. *PLF v. Andrus* 657 F.2d 829 (6th Cir., 1981); 48 FR 49244.

#### References

- Ayensu, E.S., and R.A. DeFilipps. 1978. Endangered and Threatened Plants of the United States. Smithsonian Institution and World Wildlife Fund, Washington, D.C.
- Baillon, M.H. 1859. Monographie des Buxacées. Paris.
- Britton, N.L., and P. Wilson. 1923. Botany of Porto Rico and the Virgin Islands. In: Scientific Survey of Porto Rico and the Virgin Islands, Vols. 5 and 6. New York Acad. Sci., New York.
- Little, E.L., Jr., R.O. Woodbury, and F.H. Wadsworth. 1974. Trees of Puerto Rico and the Virgin Islands, Vol. 2. U.S. Dept. Agric., Forest Service. Agric. Handbook No. 449. Washington, D.C.
- Vivaldi, J.L., and R.O. Woodbury. 1981. *Buxus vahlii* Baill. Status report submitted to the U.S. Fish and Wildlife Service, Mayagüez, Puerto Rico.

#### Author

The primary author of this proposed rule is Mr. Agustín P. Valido, U.S. Fish and Wildlife Service, then at the Mayagüez Field Station, Mayagüez, Puerto Rico, and now in the Atlanta Regional Office. Status information and a preliminary package were provided by Dr. José L. Vivaldi, Cond. Parque de las Fuentes, Hato Rey, Puerto Rico. Ms. Diane MacKenzie, then of the Service's Atlanta Regional Office, and Dr. Bruce MacBryde, of the Service's Washington Office of Endangered Species, served as editors.

#### List of Subjects in 50 CFR Part 117

Endangered and threatened plants,  
Endangered and threatened wildlife,  
Fish, Marine mammals, Plants  
(agriculture).

#### Proposed Regulation Promulgation

##### PART 17—[AMENDED]

Accordingly, it is hereby proposed to amend Part 17, Subchapter B of Chapter I, Title 50 of the Code of Federal Regulations, as set forth below:

1. The authority citation for part 17 reads as follows:

Authority: Pub. L. 93-205, 87 Stat. 884; Pub. L. 94-359, 90 Stat. 911; Pub. L. 95-632, 92 Stat.

3751; Pub. L. 96-159, 93 Stat. 1225; Pub. L. 97-304, 96 Stat. 1411 (16 U.S.C. 1531 *et seq.*).

2. It is proposed to amend § 17.12(h) by adding, in alphabetical order by family, genus, and species, the following to the List of Endangered and Threatened Plants:

##### § 17.12 Endangered and threatened plants.

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(h) \* \* \*

Species		Historic range	Status	When listed	Critical habitat	Special rule
Scientific name	Common name					
Buxaceae—Boxwood family						
<i>Buxus vahlii</i>	Vahl's boxwood	U.S.A. (PR)	E		NA	NA

Dated: June 25, 1984.

J. Craig Potter,

Acting Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 84-18577 Filed 7-12-84; 8:45 am]

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